



## APPENDIX "A"

### BRIEF DESCRIPTION OF THE DRAWINGS

The advantages and features of the present invention will become better understood with reference to the following more detailed description and claims taken in conjunction with the accompanying drawings, in which like elements are identified with like symbols, and in which:

FIG. 1 is a perspective view of the [industrial roll handling] apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor.

FIG. 2 is a [side] front view of the [industrial roll handling] apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor.

FIG. 3 is a [front] side view of the [industrial roll handling] apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor without the truss.

FIG. 4 is a side view of the apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor.

FIG. 5 is a side view of the apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor.

FIG. 6 is a perspective view of the apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor in use.

### DETAILED DESCRIPTION OF THE INVENTION

The preferred embodiment of the present invention, the [industrial roll handling] apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor 10 is shown in FIGs. 1-[3] 6. As seen in FIG's 1 and [2] 5, the preferred embodiment of the [industrial roll handling] apparatus for lifting and moving rolls of industrial material for use with a forklift or tow

motor 10 has attachment legs 12 that receive the tines of a fork lift or tow motor allowing the [industrial roll handling] apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor 10 to be maneuvered by the same. A "T" handle pin 14 is used to lock the attachment legs 12 to the fork lift or tow motor. A triangular truss 16 preferably forms the main body of the [industrial roll handling] apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor 10. It gives the apparatus 10 the strength needed to support heavy industrial rolls of material 40 as seen in FIG. 5. Traveling through the truss 16, as illustrated in the side view of the [industrial roll handling] apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor 10 shown in FIGs. [2] 3 and 5, is an axle 18. The axle 18 is situated within the arms of the truss 16 such that it can freely rotate three hundred and sixty degrees. Front and back bearings 20, 22 placed between the arms of the truss 16 allow the axle 18 to turn freely. The front and back bearings are kept in place by concealment plates [(not shown)] 21, 23 that hold front bearing casing [21] 20 and rear bearing casing [23] 22. A collar 39 is attached to the end of the axle 18 to keep it in place. One of ordinary skill in the art would readily recognize that other methods can be used to keep the bearings 20, 22 in position. In the preferred embodiment, an [outer] inner barrel 24 is attached to the face of the truss 16. The [outer] inner barrel 24 does not rotate and is kept stationary in position with the truss 16. [Within the outer] Surrounding the inner barrel 24, in the preferred embodiment, is an [inner] outer barrel 26 that does rotate.

In the preferred embodiment, [both] the outer barrel [24] 26 has a single aperture 29 located on its outer circumference. [and t] The inner barrel [26] 24 [have] has several apertures 25 therethrough that are evenly spaced around [the outer rims of each] its circumference. The apertures 25 are sized such that pins 27 can be inserted partially therethrough. The pins 27 work

to keep the [inner] outer barrel 26 stationary with the [outer] inner barrel 24 when necessary. As the [inner] outer barrel 26 rotates, a different pair of apertures 25 and 29 are constantly being aligned.

Attached to the face of the [inner] outer barrel 26, in the preferred embodiment, is a plate 28, more clearly viewed in FIGs. [3] 1 and 2. The plate 28 serves as a backbone to any industrial rolls being fastened thereto. The axle 18 is attached to the plate 28 through an aperture 28A and the plate 28 is attached to the [inner] outer barrel 26, such that when the plate 28 and any roll 40 attached thereto is manually rotated by the user, both the axle 18 and the [inner] outer barrel 26 turn with the plate 28.

In the preferred embodiment, four rectangular metal partitions 30 are hinged to the plate 28. The metal partitions 30 are preferably positioned such that they stem from the sides of the plate 28 when the plate 28 is positioned vertically with the ground, with two partitions 30 stemming off of one side of the plate 28 and two partitions 30 stemming off of the opposite side of the plate, one each at the top and bottom of each side. [The metal partitions 30 are preferably slightly curved so as to fit the curve of an industrial roll. One of ordinary skill in the art would readily recognize, however, that the metal partitions 30 need not be curved in shape.] Attached to each of the two metal partitions 30 positioned on one side of the plate 28 are threaded bolts 32. The threaded bolts 32 are used for fine adjustments of the tightness of the straps 34 used to secure the industrial rolls 40 to the [industrial roll handling] apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor 10. Attached to each of the two metal partitions 30 positioned on the opposite side of the plate 28 are straps 34. The straps 34 are preferably constructed from leather, although one of ordinary skill in the art would readily recognize that a number of other materials, including, but not limited to, nylon, can be used to

construct the straps 34. Screwed onto the threaded bolts 32 are buckle mechanisms 36 for receiving the straps 34. Each of the buckle mechanisms 36 of the preferred embodiment, have a notch 38 for inserting through the nearest aperture 35 in the straps 34 after the straps 34 have been wrapped around an industrial roll 40 or when the apparatus 10 is empty. The buckle mechanism 36 of the preferred embodiment also has a handle 37 for tightening the hold of the straps 34 after the notch 38 has been secured. The handle 37 is flipped to its opposite position pulling the straps 34 tighter than just the notch 38 alone. One of ordinary skill in the art would readily recognize that a different means for securing the straps 34 other than the buckle mechanism 36 described herein can be used to secure the industrial roll of material 40 to the [industrial roll handling] apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor 10, including, but not limited to, a simple buckle.

To secure a roll of material 40, a fork lift or tow motor is inserted and locked into the attachment legs 12 of the [industrial roll handling] apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor 10, as seen in FIG. 6. Using the fork lift or tow motor, the [industrial roll handling] apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor 10 is then moved to the position of the roll 40 that needs to be maneuvered. Assuming that said roll is on the ground, the [industrial roll handling] apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor 10 is then placed on the ground, again using the fork lift or tow motor, as close to the roll 40 as possible. The roll 40 is then strapped to the [industrial roll handling] apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor 10 using the straps 34 and the buckle mechanism 36. The roll 40 is now ready to be moved where it is needed. In an instance where the roll 40 needs to be rotated, the user merely removes the pins 27 from the

barrel apertures 25 and manually rotates the roll 40 into position. Once the desired position is achieved, the user reinserts the pins 27 into the aligned barrel apertures 25 and 29 to hold that position. [In the preferred embodiment, two pins 27 are preferably used to keep the [inner] outer barrel 26 stationary with the [outer] inner barrel 24. One of ordinary skill in the art would readily recognize, however, that any number of pins 27 can be used to secure the [inner] outer barrel 26.]

Although this invention has certain preferred embodiments, it will be obvious to those skilled in the art that various changes and modifications may be made therein without departing from the invention, and all such changes and modifications are intended to fall within the true spirit and scope of the invention.

## **APPENDIX “B”**

### **ABSTRACT**

[An industrial roll handling apparatus is disclosed herein. Said industrial roll handling] This apparatus allows the user to lift and maneuver industrial rolls and other heavy objects without the aid of another individual. [The industrial roll handling apparatus is devised to be] It is removably attached to a forklift or tow motor for maneuverability. [The industrial roll handling apparatus] It has a triangular truss body that provides strength and support and a barrel within a barrel system that allows an industrial roll to turn independently from the truss. Straps used in combination with a buckle fastening system secure the industrial roll to the apparatus. Once fastened, the industrial roll can be manually rotated in a complete circle.

## APPENDIX "C"

What is claimed is:

1(amended). An [industrial roll handling] apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor comprising:

a triangular truss body[, having apertures therein];

a pair of attachment legs, for matingly engaging a machine capable of lifting and moving objects, coupled to the triangular truss body;

a means for locking said attachment legs to said machine capable of lifting and moving objects;

a pair of concealment plates, coupled to the triangular truss body[, within the apertures thereof];

a pair of bearing casings contained within said pair of concealment plates;

an axle, said axle inserted through the [apertures of the] triangular truss body, such that said axle passes through the center of each bearing casing;

a collar attached to the end of the axle for keeping the axle in place;

an inner [outer] barrel, said inner [outer] barrel fixedly secured to the face of the triangular truss body, said [outer] barrel having a plurality of apertures cut through the [edge of the] outer circumference thereof;

an [inner] outer barrel [within the outer] surrounding the inner barrel, such that said [inner] outer barrel is freely rotatable, said [inner] outer barrel having [a plurality of apertures] an aperture cut through [the edge of] the outer circumference thereof;

a plate coupled to the [inner] outer barrel, said plate having an aperture in the center thereof sized to fit the axle therethrough, said plate attached to the axle at said aperture such that

when said plate is rotated, the axle and the [inner] outer barrel rotate therewith;

a pin, removably inserted through [an] the aperture in the outer barrel and [an aligned] through one of said apertures in the inner barrel for keeping the [inner] outer barrel from turning;  
and,

a means for securing bulk material, said means coupled to the face of the plate.

2(amended). The [industrial roll handling] apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor of claim 1 wherein said means for securing bulk material is a strap and buckle mechanism wherein said strap is wrapped around the bulk material and then secured therearound by said buckle.

3(amended). The [industrial roll handling] apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor of claim 1 wherein said means for securing bulk material is a strap and buckle mechanism wherein said strap is wrapped around the bulk material and then secured therearound by said buckle and further having a handle mechanism attached to said means for securing bulk material, said handle mechanism is flipped over once the bulk material is initially secured, for further securing the bulk material in place.

4(amended). 1. An [industrial roll handling] apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor comprising:

a triangular truss body[, having apertures therein];

a pair of attachment legs, for matingly engaging a machine capable of lifting and moving objects, coupled to the triangular truss body;

a means for locking said attachment legs to said machine capable of lifting and moving objects;

a pair of concealment plates, coupled to the triangular truss body[, within the apertures



thereof];

a pair of bearing casings contained within said pair of concealment plates;

an axle, said axle inserted through the [apertures of the] triangular truss body, such that said axle passes through the center of each bearing casing;

a collar attached to the end of the axle for keeping the axle in place;

an inner [outer] barrel, said inner [outer] barrel fixedly secured to the face of the triangular truss body, said [outer] barrel having a plurality of apertures cut through the [edge of the] outer circumference thereof;

an [inner] outer barrel [within the outer] surrounding the inner barrel, such that said [inner] outer barrel is freely rotatable, said [inner] outer barrel having [a plurality of apertures] an aperture cut through [the edge of] the outer circumference thereof;

a plate coupled to the [inner] outer barrel, said plate having an aperture in the center thereof sized to fit the axle therethrough, said plate attached to the axle at said aperture such that when said plate is rotated, the axle and the [inner] outer barrel rotate therewith;

a pin, removably inserted through [an] the aperture in the outer barrel and [an aligned] through one of said apertures in the inner barrel for keeping the [inner] outer barrel from turning;

four metal partitions hinged to the plate; and,

a means for securing bulk material, said means coupled to the four metal partitions.

5(amended). The [industrial roll handling] apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor of claim 4 wherein said means for securing bulk material is a strap and buckle mechanism wherein said strap is wrapped around the bulk material and then secured therearound by said buckle.

6(amended). The apparatus for lifting and moving rolls of industrial material for use with a

forklift or tow motor of claim 4 wherein the four metal partitions are curved.] The apparatus for lifting and moving rolls of industrial material for use with a forklift or tow motor of claim 4 wherein said means for securing bulk material is a strap and buckle mechanism wherein said strap is wrapped around the bulk material and then secured therearound by said buckle and further having a handle mechanism attached to said means for securing bulk material, said handle mechanism is flipped over once the bulk material is initially secured, for further securing the bulk material in place.

7(deleted).